

REMARKS

Reconsideration of this application is requested in view of the amendments to the claims and the remarks presented herein.

The claims in the application are claims 1, 4-12 and 25- 35, all other claims having been cancelled.

The Examiner has required a four-way restriction requirement and has grouped the claims as claims 1, 2, 4-12 in Group 1, claim 3 in Group 2, claims 25 and 31-36 in Group III and claims 26 to 30 in Group IV. The Examiner has indicated that restriction is proper under PCT Rule 13.1 since they lack the same or corresponding special technical features as shown in the applied references. The Examiner further required an election of species.

Applicants respectfully traverse the restriction requirement with respect to the grouping of Groups 1 and 3 since it is deemed that they are drawn to a special technical feature in the fact that they are pharmaceutical compositions having the dual activity of inhibiting NO synthase and antioxidant activity and claims 25 and 31-36 are drawn to the method of treatment of such conditions and, therefore, they have the single general inventive concept and should be examined together. However, in order to be fully responsive to the Office Actions, Applicants elect with traverse Group I, namely claims 1

and 4-12, claim 2 having been cancelled. Applicants further confirm the election with traverse of lipoic acid and N-phenyl-2-thiophenecarboximidamine.

Claims 1, 2 and 4-12 are rejected under 35 USC 102 as being anticipated by the Naftchi '933 or '962 patents, since the Examiner deems the same teaches the claimed compositions. All the claims were further rejected under 35 USC 103 as being obvious over the '933 or '962 patents or the Petrus or Lai references. The Examiner states that the four references teach the claimed compound and it would have been obvious to use the ingredients together.

Applicants respectfully traverse these grounds of rejection since the references do not anticipate or render obvious Applicants' invention. With respect to the Naftchi '933 and '962 patents, Applicants wish to point out that these patents are directed to an active compound comprising two neurologically active groups, namely, a guanidino moiety and an alkylated xanthine group, which compound has a  $\beta$ -agonist activity. The guanidine derivatives have a  $\alpha$ -adrenergic receptor activity, as indicated in lines 25-27 of column 1, and so this is directed to the administration of a novel single compound having two different moieties, namely, a guanidino moiety with  $\alpha$ -adrenergic activity and a xanthine moiety having  $\beta$ -adrenergic activity. This can be seen from lines 37-42 of column 4.

In contrast thereto, Applicants' invention is directed to a mixture of two ingredients, one having NO synthase inhibitory activity and a second ingredient having metabolic antioxidant activity having at least two thiol groups and these are not a reaction

product of a guanidino moiety and an xanthine moiety in a single compound. Moreover, Applicants' compounds are active as NO-synthase inhibiting activity and antioxidant activity and, therefore, they are directed to different products and to different utilities and the references neither anticipate nor render obvious Applicants' invention. Therefore, withdrawal of these grounds of rejection based on 35 USC 102 and 35 USC 103 is requested.

With respect to the two remaining treatments, the Petrus patent relates to a method of treating arthritis by administering a composition comprising an inhibitor of nitric oxide synthase and an aminosugar. In lines 48 and 49 of column 2, it is stated "Aminosugars are the building blocks of articular cartilage and have anti-inflammatory actions."

The content of claim 3 suggests the addition of other agents, such as  $\alpha$ -lipoic acid or antioxidants. The amended claims clearly distinguish the presence of any aminosugar which is essential to the Petrus activity by the use of the terminology "consisting essentially of". The use of an aminosugar is therefore excluded from the present claims.

The Lai patent relates to a compound comprising a dithiocarbamate-containing nitric oxide scavenger attached to a covalent bond to a pharmacologically active agent and the said compound permits treating a pathological condition with a pharmaceutically active ingredient and to reduce nitric oxide levels. The use of a NO scavenger is to reduce the incidence of side-effects due to the protective effects imparted by modifying

the pharmacologically active ingredient. Even if the pharmacologically active ingredient is an antioxidant such as lipoic acid, as indicated in lines 60-62 of column 12, or a NO-synthase inhibitor, indicated in line 48 of column 21, the resulting compound is an active ingredient of a NO scavenger plus an antioxidant or a NO scavenger plus an NO synthase inhibitor, but not in any way two separate ingredients, one of which is a NO synthase inhibitor and the second which is an antioxidant. The Lai compound always contains a NO scavenger (to reduce the NO levels) whereas in Applicants' compositions, there is only an NO synthase inhibitor which inhibits the synthase of NO and is different from a NO scavenger and, as a second ingredient, an antioxidant. Therefore, neither of the references renders obvious Applicants' invention and withdrawal of these grounds of rejection is requested.

In view of the amendments to the claims and the above remarks, it is believed that the claims clearly point out Applicants' patentable contribution and favorable reconsideration of the application is requested.

Respectfully submitted,  
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